

CLUB REPEATERS

VE3TBR

Phone: 767-7661
Rx/Tx: 146.820/(-) MHz

VE3YQT

Phone: 767-5492
Rx/Tx: 147.060/(-) MHz

VA3OLA

Rx/Tx: 53.050/(-) MHz

VE3BGA

Rx/Tx: 145.450/(-) MHz

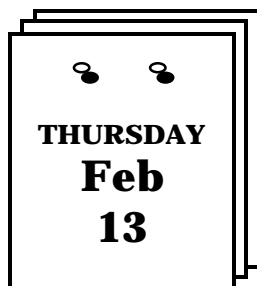
WEEKLY BREAKFASTS

Saturdays 10:00 a.m.
Blue Parrot Restaurant

2 METRE NET

Mondays 7:00 p.m.
VE3YQT Repeater.

63RD ANNUAL DINNER



63rd Annual Dinner
Landmark Inn, Strathcona
Room—Tickets \$23.00

SHORTWAVES

On a sad note, Murray Fox, VE3DJM, passed away in January. I don't have anymore details. If there are club members who knew Murray, consider writing up a notice for inclusion in the March issue of *HI-Q*.

I've made a concession to my eyesight and Adobe viewer and have gone to a 11-point font for articles. I hope that other club members will find the reading easier on the eyes as well. The larger font also makes it easier for me to fill up 8 pages each month and I'm *still* waiting for contributions from club members.

The LARC 63rd annual dinner will be held on Thursday February 13th, 1997 (usual meeting night) at 6:30 p.m., in the Landmark Inn, Strathcona Room. It's a buffet dinner with guest speaker and door prizes. Tickets are \$23.00 per person and available from any member of the executive or at T&S, on Dawson Road, from Terry or Skip.

Pat, ex-VE3PHU, is sporting the new call—VA3PP. Maybe order some new RAC licence plates to go along with it. Judy, VA3EAP has the new plates with the RAC logo. They look pretty spiffy!

I saw the videotape of the Christmas party. The skits were very funny. The YLs and XYLs of the club did a great job! Maybe this will become an annual event, as it seemed that everyone,

including the staff at Pizza Hut, enjoyed the evening. Give Mike, VE3ZG a call if you want view a copy of the tape.

We have a new web page manager for the club. Steve, VE3KRH, has taken over from Len, VA3LEB. The address is: www.tbaytel.net/srobb/larc.htm.

A lot of repeater users don't know how to answer a phone call on the VE3YQT repeater. To do so, just press your PTT (press-to-talk) key, press the star (*) key twice and release your PTT. This should connect the reverse patch, then you can talk to the party on the line. To disconnect the call, press the crosshatch (#) key.—Ed.

Inside...

| | |
|-------------------------------|---|
| <i>New Mir Voice</i> | 2 |
| <i>Meeting Minutes</i> | 3 |
| <i>Canadian Solar Program</i> | 4 |
| <i>RAC Report</i> | 5 |
| <i>Ham Puzzler</i> | 5 |
| <i>Notices</i> | 6 |
| <i>Ontario QSO Party</i> | 7 |
| <i>Snow Train Expedition</i> | 7 |
| <i>Public Service Events</i> | 8 |

1996/1997 LARC

Founding President

P.J. (Pat) O'Shea, VE3FW
1881-1972

In honour of the memory of our founding president, Mr. P.J. (Pat) O'Shea, the club call sign is VE3FW.

Senate

Bill Roberts, VE3ARN
Keith Fiske, VE3JQ
Bert Lambert, VE3BKY
Ray Greer, VE3CH
Hugh Elliott, VE3EDW
Bill Klemacki, VE3AJ

Executive Board

President: Ian Mellis, VA3RIM 577-1628
Vice Pres: Ed Baumann, VE3SNW 622-1216
Secretary: Norm Bell, VE3XRC 577-9316
Treasurer: John Watson, VE3GTX 683-3199
Directors: Judy LeFevre, VA3EAP 622-7920
Dave Horne, VA3DVE 344-9325
Don Bel, VA3DPB 473-5482
Rob Van Wyck, VE3FLB 344-7845
Mem.Sec: John Watson, VE3GTX 683-3199
PastPres: Terry. Stewardson, VE3TKA 577-9439
HI-Q Ed: Robert Mazur, VA3ROM 344-7731

Thunder Bay Voyageur Award

The Lakehead Amateur Radio Club in cooperation with the City of Thunder Bay, sponsors the Voyageur Award. Any SWL, scanner listener or ham monitoring or working 5 Thunder Bay amateur radio stations qualifies. Send your log copy with dates, times, frequencies, call signs and \$2.00 to the Awards Manager at the club address below.

Club and Newsletter Information

HI-Q is published by the Lakehead Amateur Radio Club, Inc., an Ontario registered non-profit corporation. The opinions expressed or implied in issues of *HI-Q* are those of the author. The LARC assumes no responsibility for the accuracy or the information submitted.

Material in *HI-Q* may be copied for non-profit use provided that credit is given to the source. Contributions related to amateur radio, especially those articles of interest to Northwestern Ontario amateurs are encouraged. Material can be submitted in WordPerfect® format or as a text file via fax: 807-345-2688, packet: VA3ROM@VE3TKA, voice mail: VE3TBR repeater user 159 or via email: rmazur@tbaytel.net. Send material or dated announcements no later than the 25th of the month that it is to appear.

To reduce costs, advertising at the following per issued rates is accepted: full-page—\$60.00, 1/2 page—\$40.00, 1/4 page—\$20.00 and 1/8 page—\$15.00. Reduced rates (1/3 off) are available upon receipt of advance payment for 10 issues (one full year). Send your ad copy and cheque (payable to the LARC) to the club address listed below. Advertising in *HI-Q* does not imply an endorsement or recommendation of the product or service.

LARC membership fees are set for the year as follows: regular—\$30.00, associate—\$20.00, associate (attending ham classes)—\$90.00, student (attending school full-time)—\$15.00 and family—\$30.00 plus \$10.00 for each additional family member living at the same address. *HI-Q* is sent to all LARC members but only one copy is mailed to each address.

Mailing Address

The Lakehead Amateur Radio Club, Inc., Suite 184, 1100C Memorial Avenue, Thunder Bay, ON, P7B 4A3, Canada.

Internet Home Page

Get your copy of *HI-Q* electronically at:
<http://www.tbaytel.net/srobb/larc.htm>.

New Mir Voice

by Jim, VE3UA

In February, German astronaut Dr. Reinhold Ewald will join the Mir crew for an extensive series of experiments in space. Dr. Ewald will also employ SAFEX (Space AmateurFunk Experiment), specifically the digital voice recorder to automatically transmit actual information about the mission including personal impressions.

SAFEX equipment on Mir, built by German amateurs, operates in the 70 cm band and includes Packet (both Digi and Mailbox) and Voice (QSO) mode (Repeater or Duplex). Nominal frequencies for SAFEX modes are as follows:

| Mode | Uplink (MHz) | Downlink (MHz) | CTCSS Tone |
|----------|--------------|----------------|------------|
| Packet | 435.775 | 437.975 | none |
| Repeater | 435.750 | 437.950 | 141.3 Hz |
| QSO | 435.725 | 437.925 | 151.4 Hz |

Only one mode can be in operation at a time. Repeater mode has been the recent normal operation but present plans for the February mission call for activating QSO mode which includes the digital voice recorder. The astronaut can store and automatically transmit at periodic intervals up to two minutes of speech. If the attitude of the space station is favourable, these broadcasts can be received two or three times during a single pass. Reception is possible even using a handheld radio.

There are some significant factors which should be considered for satisfactory SAFEX operation not the least of which is tracking. There are a number of good software programs available which provide data (relative to specific ground sites) including distance and times for: Acquisition

of Signal (AOS), Time of Closest Approach (TCA) and Loss of Signal (LOS). For those with dedicated satellite antenna systems some of these applications also include: azimuth, elevation and Doppler shift data.

The rate at which the satellite travels either toward or away from the earth-bound observer causes slight frequency changes due to Doppler shift. In the 70 cm band, Doppler shift can be as great as 20 kHz. and it affects both receiving and transmitting but in opposite ways. Ground stations must compensate for

Doppler shift by tuning their receive frequency +10 kHz above nominal frequency and their transmit frequency -10 kHz below nominal at AOS. Compensation is reduced to zero at TCA then rapidly changes at an increasing rate as Mir recedes. Tune your receive frequency -10 kHz below nominal and your transmit frequency +10 kHz above until LOS.

Two way communication with SAFEX does not necessarily require high transmit power. QSOs have been achieved using a handheld radio with ranges of up to 1000 km. In most cases, a transmit power of 10 Watts with a 10 dB gain antenna should be sufficient. One should be aware though, that the attitude of the space station can and does affect the QSO. SAFEX employs

(Continued on page 4)

Meeting Minutes

by Norm, VE3XRC

Minutes of a Meeting of the Lakehead Amateur Radio Club held in Room 207B at Confederation College, Thunder Bay, Ontario on January 9, 1997.

The meeting was called to order at 7:30 p.m. by the President Ian Mellis, VA3RIM with 39 members and guests in attendance.

The first order of business was the announcement of a Silent Key, VE3DJM, Murray Fox who passed away on January 8, 1997. A moment of silence was observed in memory of Murray.

VE3AJ, Bill Klemacki announced that the Lakehead Amateur Radio Club has received a donation from the estate of VE3HMU, Bev Biggs.

Minutes of the previous meeting:

The minutes of the previous meeting held December 12, 1996 were published in detail in the January edition of *HI-Q* and mailed to all members. **Motion:** moved by VE3BHN, Bob Gillespie and seconded by VE3TKA, Terry Stewardson that the minutes be accepted as published. **Carried.**

Treasurer's Report: VE3GTX, John Watson.

Motion: moved by VE3GTX, John Watson and seconded by VA3GD, Pat Doherty that the Treasurer's report be accepted. **Carried.**

Correspondence: a letter has been received from VA3SAM, Sam Shonias and has been printed in *HI-Q*.

Committee Reports:

Public Service: VE3ZG, Mike Nawrocki reported that the Winter Carnival has been cancelled for this year. The crew is packed and ready to head south for the John Beargrease Sled Dog Race and the Sibley Ski Tour is coming up on Saturday, March 1, 1997.

CJ '97: VE3FLB, Rob Van Wyck gave the members an update on the Jamboree. He is looking for volunteers, please contact him if you are interested. Three hydro poles have been obtained for antennas.

Annual Meeting: VA3EAP, Judy LeFevre announced that tickets were available for the Annual Meeting to be held February 13, 1997 at a cost of \$23.00 per person. Symposium is at 6:30 p.m. with dinner at 7:15 p.m.

Equipment Update: VE3TKA, Terry Stewardson reported that nothing has had to be fixed recently, everything is working well.

Radio Amateurs of Canada: VA3GD, Pat Doherty reported that as a result of the Christmas holidays, things were quiet.

Hunter Memorial Contest: VE3XRC, Norm Bell reminded those in attendance that the deadline for the submission of logs was January 15, 1997.

Classes: VE3SNW, Ed Baumann reported that the last class before Christmas was spent on building twin lead 2m antennas. One student, Jan Sokoloski has passed her basic exam and has the call VA3JRS.

Social Committee: VE3AVS, Dave Kimpton has agreed to take on the position of Social Committee Chairman and the first event scheduled is a family ski night at Kamview on February 27, 1997.

Executive Committee Meeting: VA3RIM, Ian Mellis reported that he had made approximately 50 telephone calls regarding members who had not paid their dues. Members will receive an invoice for their dues in the fall of 1997. The membership list that was published in the January edition of *HI-Q* was not accurate. At the next executive committee meeting, some long range planning will be attempted.

NOTICE OF MOTION:

A "Notice of Motion" regarding changes to the Club's Bylaws was brought forward at the November meeting to be voted on at this

(Continued on page4)

| | | |
|---|--|-----------|
| Balance as of November 30, 1996: | | \$2281.58 |
|---|--|-----------|

| | | | |
|----------------|-----------------|--------------|--------|
| Income: | Bank Interest | 0.30 | |
| | Membership Dues | 490.00 | |
| | Student Fee | 90.00 | |
| | Licence Fee | <u>23.00</u> | 603.30 |

| | | | |
|------------------|---------------------|-------------|---------|
| Expenses: | Telephone | 58.66 | |
| | Bank Service Charge | <u>1.20</u> | (59.86) |

| | | |
|---|--|-----------|
| Balance as of December 31, 1996: | | \$2825.02 |
|---|--|-----------|

(New Mir Voice Continued from page2)

separate antennas for receive and transmit. One or the other may be obscured by the spacecraft. A good downlink signal does not necessarily imply good uplink conditions since the two antennas are mounted at different locations on the PRIRODA module of Mir.

A special QSL card will confirm successful two-way communications via SAFEX. Alternately, you can simply send a copy of a message relayed by the

digital voice recorder. To prove the voice transmission or a radio connection via SAFEX, the operator must send a QSL card including a computer .WAV file on 3.5 disk of the voice recording.

Mail both to: DF0VR, Ham Radio Group at DLR Oberpfaffenhofen, Postfach 1116, D-82230 Wessling, Germany.

Edited by Jim - VE3UA from SpaceNews 20-Jan-96, BID: SSPC0120, which credits the

SAFEX Team and DF0VR. SpaceNews' Author and Editor is John A. Magliacane, KD2BD in Wall Township, New Jersey, USA. Published weekly, SpaceNews is made available for non-commercial use.

John has a home page with some interesting links at: <http://www.njin.net/~magliaco>.

There is a Mir Refresher Course on the Internet at: www.sarrio.com/sarrio/rsmir.html.

(Meeting Minutes Continued from page3)

meeting. There were three changes in the notice of motion and after some discussion, each change was voted on separately.

The following are the changes proposed:

Article 3.2: the last statement "The DIRECTORS shall each have one of the following positions" to the end of the article be deleted.

Vote: For 27; against 5. **Carried.**

Article 7.1: The head office address shall be Suite 184, 1100C Memorial Avenue, Thunder Bay, Ontario P7B 4A3.

Vote: For 31, against 1. **Carried.**

Article 7.2: the last two sentences to be deleted and replaced with "The Seal and Incorporation Papers shall be held by the Secretary."

Vote: For 31, against 1. **Carried.**

Adjournment: moved by VE3FLB, Rob Van Wyck that the meeting be adjourned.

50/50 Draw: winner of the 50/50 draw was VE3TKA, Terry Stewardson.

Guest Speaker: following a short break, the guest speaker was introduced by VE3XRC, Norm Bell. The speaker was Gary Kerton, Community Emergency Advisor, Emergency Measures Ontario. Gary gave the club an overview of the responsibilities of Emergency Measures Ontario and pointed out how amateur radio was a part of the planning process.

Canadian Solar Observatory Program

Canadian radio astronomy began on 22 November, 1946. The first radio telescope was built from surplus radar components, using a 4ft paraboloidal reflector from a Type IIIC Gun Laying radar mounted on a prototype mount casting for the Model 268 3cm radar. By leaning the azimuth axis of the mount towards the Pole Star, a simple polar mount was obtained, making it possible to track the Sun. The radiometer was a 10 cm Dicke type developed during the war to test silicon mixer crystals [1].

Radio observations made by Dr. Arthur Covington of the 23 November, 1946 solar eclipse provided convincing proof that strong sources of microwave emission are located in the vicinity of sunspots. The eclipse record shows a strong dip in signal strength after 11:40 local time, when the Moon covered a large sunspot on that day's very active solar disc.

The solar radio flux comprises three main components: the sudden bursts of emission associated with flares, a slowly-varying component, changing

with the level of solar activity, and a base level, corresponding to an absence of visible activity, called the "quiet sun component."

About the Data

The data is the most current solar flux determination made by the Solar Radio Program. The data here is updated three times daily.

Owing to topographical restrictions and the varying number of daylight hours, we cannot maintain the same flux determination times throughout the year. We are currently

(Continued on page6)

RAC Report

by Pat, VA3GD

RAC Report, February 1997. It has been a relatively quiet month since my last report. While the usual business of Radio Amateurs of Canada has been going on, the staff has been busy catching up with the outstanding response from our Canada wide membership recruitment mailing.

A special committee, that the ARRL struck to study issues relating to the 1999 World Radiocommunications Conference (WRC-99), has reported back on the Morse code question. The special committee recommended no change in the existing treaty obligation that administrations test prospective amateur licensees on their Morse code ability before authorizing them to operate below 30 MHz.

RAC's position, which was submitted to the International Secretariat and Region 2 Executive Committee of the International Amateur Radio Union, is counter to the ARRL position. RAC is in favour of eliminating the Morse code requirement for operation below 30 MHz. CW would then be just another operating mode such as SSB, RTTY, etc.

The IARU Region 1 meeting in Tel Aviv, Israel, supported the HF CW requirement and recommended no changes be made to the ITU article S25. From WorldRadio, February 1997, pg. 8, Rules and Regs by Jack Kelleher, W4ZC. See also QST, December 1996, pg. 85.

As an aside, the Heard Island statistics show that CW QSOs are running well ahead of SSB ones. Code is dead?—Ed.

The little LEOs (Low Earth Orbiting satellites) proponents

are still fighting for frequency allocations within the amateur radio spectrum. Both 2 m and 70 cm are at risk. In IARU Region 1, 146 MHz to 148 MHz is not an amateur allocation, while it is in Regions 2 and 3. A new wrinkle they are trying, is to use 146/148 MHz in Region 1 and other frequencies in Region 2 and 3.

In emergency situations, LEOs in Regions 2 and 3 would use 146 MHz to 148 MHz and 430 MHz to 440 MHz as a compliment to the amateur radio service. This sounds like the thin edge of the wedge. Once you open the door, it is hard to close. They are also looking for new primary allocations in the 430 MHz to 450 MHz range. When you consider this on top of what happened to the UHF frequencies in Guatemala, our losses could start piling up. RAC, the ARRL and other national amateurs organizations will be very busy protecting the VHF/UHF and higher frequencies from commercial interests over the next decade.

The good news on the platter is that there is talk of pursuing additional amateur allocations in the HF Bands at WRC-99. I will pursue details on this in a future RAC report.

The years 1997 and 1998 will have us sitting on the edge of our chairs wondering who is going to strike next. RAC needs your support, a strong national organization can accomplish a great deal.

There is strength in numbers. 73—Pat Doherty, RAC Directory, Ontario North.

H a m Puzzler

by Randy, VA3GOT

Dave's puzzle will return next month. Here is a new brain teaser for you. Can you figure out the following puzzles? Answers next month.

An example would be as follows: e.g. 16 = O. in a P. means 16 ounces in a pound.

1. 26 = L. of the A.
2. 32 = D.F. at which W.F.
3. 18 = H. on a G.C.
4. 40 = D. and N. of the G.F.
5. 54 = C. in a D. (including the J.)

Answer to last month's puzzler:

VE3BCD = MR FIXIT

RADIO, FRAME, DIRECT, EXCITE.

If anyone else has some good puzzles please send them in so that others can enjoy them. They don't have to be related to amateur radio.

There are computer programs that can create various puzzles. Surely, there are club members who do and make crossword, cryptograms and criss-cross puzzles?—Ed.

LARC & FAMILY SKI NITE THURSDAY FEB. 27TH 7-10 P.M.

**KAMVIEW NORDIC CENTRE
MEET AT CHALET 7 P.M.**

**SKI 5 KILOMETRES EASY TERRAIN,
WELL-LIGHT TRAILS GROOMED FOR
BOTH CLASSIC & SKATE SKIING.**

**WARM CHALET WITH CONCESSION
STAND (FOOD, DRINK, ETC.)**

**PHONE KAMVIEW 475-7081 BY FEB.
25TH TO RESERVE EQUIPMENT (IF ANY
IS REQUIRED).**

**FURTHER INFORMATION CAN BE
OBTAINED BY CONTACTING NORM,
VE3XRC (577-9316) OR DAVE, VE3AVS
(344-8949).**

COME ON OUT!—BRING FRIENDS!

SAM, VA3SAM, IS NOW RUNNING A MULTIMODE ICOM 725 IN GULL BAY. SAM PUTS 100 WATTS INTO A 13-ELEMENT CUSHCRAFT BEAM UP 56 FEET. I HAD MY FIRST QSO WITH SAM ON UPPER SIDEBAND, JANUARY 18TH, ON 144.200 MHZ, GIVING ME A NEW GRID SQUARE—EN59. HIS SIGNAL INTO THUNDER BAY, PEAKED AROUND S5 TO S6.—73 DAVE, VE3AVS.

(Solar Program Continued from page4)
operating to the schedule below:
Flux Determination Times:
November through February:
1800UT, 2000UT and 2200UT.
March through October:
1700UT, 2000UT and 2300UT.

The record starts sporadically in early 1947 after the originator, Dr. Covington of the Radio Engineering branch of the NRC, Ottawa, received permission to commence a regular program of observing the Sun and measuring its noise power at the microwave frequency of 2800 MHz.

The routine measurement of the 10 cm Solar Radio Flux was started then, and continues to this day. The Radio Solar Flux density is measured in Solar Flux. One solar flux unit equals $(10^{-22} \text{ Watts})(\text{m}^{-2})(\text{Hz}^{-1})$, or 10^4 Janskys, the standard radio astronomy unit of measurement.

The daily flux was measured in Ottawa [ARO] at 1700 UT until June 1991, when the program was moved to Penticton [DRAO], three time zones west. The epoch time was changed to 1930UT for one year, then was finalized to 2000UT as it continues today.

(1) Covington, A.E., Origins of Canadian Radio Astronomy: J. Roy. Astron. Soc. Can. 82, 165-178 (1988).

See also, Covington, A.E., Microwave solar noise observations during the partial eclipse of November 23, 1946: Nature, 159, 405-406 (1947).

From the NRC web page site. I was inspired for this article when a ham wondered, on the TPN, about the units of solar flux measurement. No one knew the answer. Now, you can flaunt your knowledge.—Ed.

First Annual Ontario QSO Party

26 April 1997, 18:00 UTC to 27 April 1997, 18:00 UTC. The Ontario DX Association proudly announces the First Annual Ontario QSO Party.

Frequencies: (Phone only). All HF bands 160-10 metres with the exception of the WARC Bands (12, 17 and 30 metres).

Use of FM: Operators may not use repeaters for the purpose of the contest. Operators should keep the 2 meter FM simplex calling frequency of 146.520 MHz clear.

Categories: Single Operator Low Power (under 100 watts on HF, under 50 watts on VHF/UHF); Single Operator High Power (over 100 watts on HF, over 50 watts on VHF/UHF); Multi-operator, FM-QRP (under 5 watts). Also shortwave listener category.

Exchange: Ontario stations send signal report and county/district/regional municipality. Other stations send signal report and Canadian province/territory, U.S. state or DXCC country.

Scoring: Ontario stations work everyone. Stations outside Ontario only work Ontario stations. Score 1 point for every station worked per band. Score 10 points for working VE3ODX and VA3RAC per band. Shortwave Listeners log only Ontario stations.

Multipliers: Ontario stations earn 1 multiplier point for each Ontario county/district/municipality, Canadian

province/territory, U.S. state or DXCC country worked. Stations outside Ontario earn 1 multiplier point for each Ontario county/district/municipality worked. (49 total).

Mobile/Portable Stations: Mobile and/or portable stations may be worked once per band in each county/district/municipality they operate from.

Shortwave Listeners: Use the same formula as stations outside Ontario.

Total Score: Total QSO points times multiplier points.

Awards: Certificates to top scorer (Ham & SWL) in each Ontario county/district/municipality, Canadian province/territory, U.S. state, and DXCC country. Free copy of the *1997 Passport to World Band Radio* by Larry Magne to the top amateur radio entrant in Ontario, Canada, the U.S.A. and DXCC.

SWL Logs should show both the Ontario station heard and the station being worked. If you log two Ontario stations working each other you may count both stations for points.

Send your logs to: Ontario DX Association, P.O. Box 161, Stn. A, Willowdale, Ontario, Canada M2N 5S8. Logs must be postmarked no later than 31 May 1997. Logs may be sent on disk in standard text file format. Results will be published in the October, 1997 issue of *DX Ontario*. For a copy of the magazine please send \$5.00 Canadian or equivalent. For a copy of the results only please send an SASE with sufficient return postage.

County/District/Municipality Multiplier List: Algoma (ALG), Brant (BRT), Bruce (BRU), Cochrane (COC), Dufferin (DUF), Durham (DUR), Elgin (ELG),

Essex (ESX), Frontenac (FRO), Grey (GRY), Haldimand-Norfolk (HNO), Haliburton (HLB), Halton (HAL), Hamilton-Wentworth (HAM), Hastings (HAS), Huron (HUR), Kenora (KEN), Kent (KNT), Lambton (LAM), Lanark (LAN), Leeds & Grenville (LGR), Lennox-Addington (LXA), Manitoulin (MAN), Middlesex (MSX), Muskoka (MUS), Niagara (NIA), Nipissing (NIP), Northumberland (NOR), Oxford (OXF), Ottawa-Carleton (OTT), Parry Sound (PSD), Peel (PEL), Perth (PER), Peterborough (PET), Prescott-Russell (PRU), Prince Edward (PED), Rainy River (RAI), Renfrew (REN), Simcoe (SIM), Stormont-Dundas & Glengarry (SDG), *Sudbury (SUD), Thunder Bay (TBY), Timiskaming (TIM), Metropolitan Toronto (TOR), Victoria (VIC), Waterloo (WAT), Wellington (WEL), York (YRK).

*Sudbury counts as Sudbury District for the purpose of the contest.73—Rob, VE3SRE.

Snow Train Expedition

Through the joint efforts of the Algoma Amateur Radio Club and the Algoma Central Railway we will be aboard one of their "Snow Train" coaches on March 16, 1997. We will operate on the 15, 20, 40, and 80 metre bands. We will also be operating on a dual-band all-mode on VHF/UHF. Frank Geal, VE3FOG, has designed and engineered special mounts which have been made up for all Hustler

(Continued on page 8)

(Snow Train Continued from page 7)

HF Mobile antennas and the DB High Gain Vertical. Also, in the design of the HF antennas will be a centre-fed dipole stretched over the length of the two coaches (170 feet) which will be spring loaded for curves.

The listening and transmitting frequencies that the club will be using are as follows:

| Band | CW | Phone (MHz) |
|------|--------|-------------|
| 80 | 3.545 | 3.800 |
| 40 | 7.045 | 7.260 |
| 20 | 14.045 | 14.260 |
| 15 | 21.045 | 21.260 |

VHF and UHF contacts will be through our local repeaters and simplex on 146.55 and 448.150

MHz. Times of operation will start at 7:30 a.m. and end at 5:00 p.m. on March 16, 1997 Sunday, EST.

The Snow Train will travel from Sault Ste. Marie to the picturesque Agawa Canyon. There will be 25 members onboard the amateur coach along with a television crew, radio broadcaster, and news press. The ACR will have a diner car available and we are led to believe that the Green St. Patrick liquid will be available at the bar.

This venture is an example of our club's interest in getting all fellow club members and others to participate, in not just VHF/UHF, but for HF operators as well. This should be a real enjoyable and fun

trip for all those participating.

The Algoma Central Railway is providing another coach in front of us and have lots of room for any other interested amateurs, family, children or friends who would like to take this trip with us at regular fare prices. This should be a real enjoyable and fun trip for all participating on the voyage. For those who are unable to join us on this venture but able to work our callsign—VA3ACR on March 16, 1997, we will be confirming all contacts with a special QSL card on our return.

More details will be published in the RAC TCA magazine upcoming issue. 73—Paul D. Breton, Public Relations, RAC.

LARC Public Service Events

by Mike, VE3ZG

My article for the January issue of *HI-Q* was done a little too late as the issue had already gone to the printer. So, belatedly, I hope that everyone had a good Christmas and that the New Year's celebrations were not too boisterous and that your resolutions haven't been broken—yet!

The first public service event of 1997 is now history. Thanks to Bob Hansen, VE3RVA; Ian Mellis, VA3RIM and Norman Bell, VE3XRC, who travelled and spent several days at the lodge in Grand Marais. They provided valuable

communications for the *John Beargrease Dog Sled Race*. I understand that one of the three is supposed to be filling us in on what transpired. Thank you, gentlemen, for your involvement. We must be doing things right, as the invitation for this event keeps getting renewed each year.

It appears that February will be a quiet month. The Winter Carnival has been cancelled for this year due to a lack of volunteers to organize the event. (and a late start—Ed.) I understand it will go on next year. Don't forget about the ski night

near the end of the month. If you do, I'm sure that Dave, VE3AVS will be reminding everyone.

This is near the end of January, as I write this article, CJ '97 is less than six months away. The drive will be on shortly for volunteers to participate in any way that they can. You will be hearing from the organizers shortly on what, where, when, how and what will be needed. The Club has made a commitment to participate. You may volunteer early or—?

The Annual Dinner is on February 13th at the Landmark Inn. Hope to see you all there.

Comet Hale-Bopp is visible this month and into May.—Watch the sky for it!